



Outline

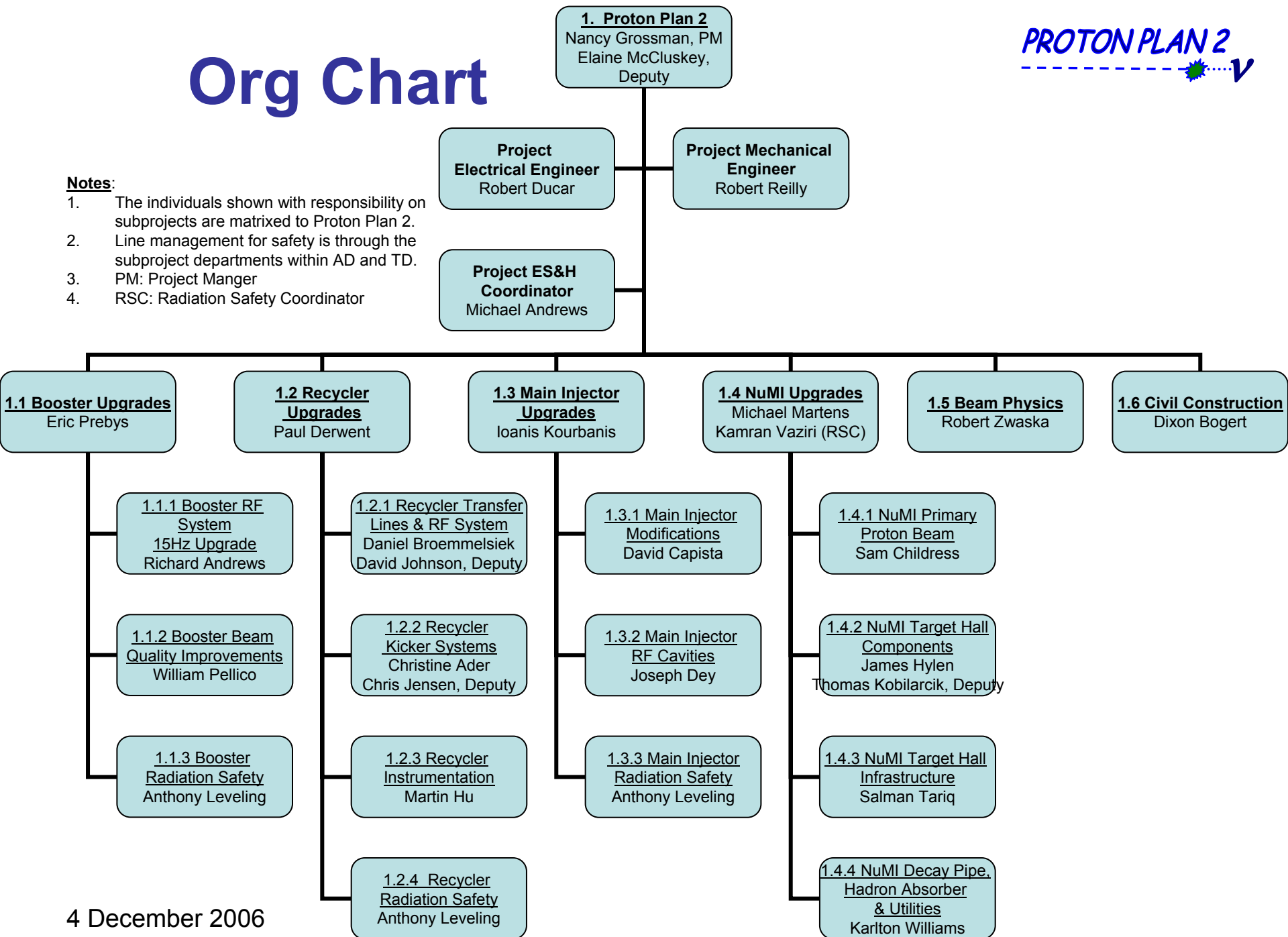
PROTON PLAN 2

- Action Items
- PP2 Progress [Nancy/Elaine]
 - Org Chart Update
 - FY07 Budget/Plans Discussion
 - FY08 Summer Shutdown
 - Overall cost Reduction Status
 - Funding Profile Status & Fund Types
 - Cost Accounts
 - GPP (New Start and Funding)
- SNUMI Status
 - Strategy – Comparison Table [Nancy]
 - Campaign/MIE Project/Line Item Project? [All]

Org Chart

Notes:

1. The individuals shown with responsibility on subprojects are matrixed to Proton Plan 2.
2. Line management for safety is through the subproject departments within AD and TD.
3. PM: Project Manager
4. RSC: Radiation Safety Coordinator





FY07 Budget

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- FY07 Budget from Bruce: \$1.2M (M&S only)

WBS	Name	Items	FY07\$
1.2	Recycler Upgrades	Permanent Magnet Work (\$15K) & Kickers ((\$303K)	\$432,083
1.3	Main Injector Upgrades	RR low level RF work	\$57,868
1.4	NuMI Upgrades	ME target, cooling R&D, remote work development	\$64,577
1.5	Beam Physics	Electron cloud measurements in MI & RR	\$36,101
1.6	Civil Construction	Work for penetrations in FY07.	\$714,425
		Total (this is work in progress)	\$1,305,054

- Civil outside work for FY07 came in significantly over estimate
 - Working on a compromise (do less design work in FY07 than wished)
 - Look to cut ~\$60K from Civil
- Look to cut ~\$40K elsewhere (MI LL RF, NuMI, Beam Physics)



FY07 Budget – FY08 Shutdown

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- Need shutdowns for PP2 civil construction work for:
 - Excavation & installation of penetrations at MI14/39 tunnel locations
 - Excavation & installation of building foundations within or near shielding envelope
 - Installation of utilities (ICW, comm/power ductbanks, power cable) across berms
- Desirable to do all this during FY07 shutdown, **but**
 - to minimize FY07 M&S and spread schedule risk during shutdown over more time,
 - would like to do cable installation, particularly from MI8 to MI14, during FY08 shutdown.
- Need to know how to plan work in order to properly write GPP CDR for approval in January.



Overall cost Reduction Status *PROTON PLAN 2*

- Done, but not checked:
 - Nearly done separating out spares
 - Need to check and sum costs (with and without spares)
 - Replaced new quads in NuMI beamline with existing ones
 - Added new profile monitors
 - Made NuMI items more “realistic” - New items replaced with minor modifications to existing equipment
 - Saves M&S
 - Minimizes radioactive components needed to store
 - Increases work required during the shutdown as must remove component, then modify in the workcell, then re-install vs. simply replacing with a new component
 - This increased work is probably not real as if we made new modules, we would have a lot of work compacting and removing the old modules



Overall cost Reduction Status *PROTON PLAN 2*

- In progress or still to do:
 - Changes due to beamline optimization
 - Need to verify/review changes first
 - One less kicker prototype
 - A new Lambertson magnet
 - Less mirror magnets?
 - Presently:
 - Total escalated obligations: \$20M
 - Total burdened escalated obligations: \$23.1M (no cont.)
 - This is below \$24M escalated, burdened number from DOE
- So are we OK?



Funding Profile

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- Have more or less sufficiently delayed tasks from FY07 to FY08
- Delaying M&S tasks from FY08 to FY09
 - Mostly done – needs checking
 - Fixing links, clarifying tasks (mostly in the NuMI portion)
 - Changing WBS structure at lower levels
 - Balancing management WBS structure vs. cost accounting WBS structure
- Once we settle the M&S FY08 to FY09 delays, will look at FY09 to FY10 delays of M&S
 - Mainly NuMI
- Will need to then look at labor profiles too and see re-level
- Probably only get the M&S delays done and QA'd a bit for the January profile
 - We will only have had a chance to look at the labor profile a bit at that point and not get to level too much, depending on when in January this is needed



Funding Profile for DOE

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- Developing funding profile based on these DOE fund types that relate to Fermilab Service Types

SERVICE TYPE	DOE FUND TYPE
OP-EXST PRGM OP-ACCEL	Operating (general studies, analysis, decommissioning)
EQ-EXST PRGM SUPP-ACCEL	General Equipment (includes design, fabrication & installation)
PL-EXST PRGM SUPP-GPP	Plant (civil work)
OP-EXST PRGM OP R&D-ACCEL	R&D (prototype design, fab., test)
OP-INV-SPARES	Inv (is this req'd since spares are off the campaign?)

- Assumed to include labor and M&S
- Need goal date by which this is required
- Would like input as to how this profile is going to be used



Other Budget Items

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- For items like NuMI Module modifications where the modifications are ~\$100K (most likely what we will do) and a new module (may have to do) is ~\$350K (M&S):
 - Do we put in a huge contingency to cover this possibility?
 - Hard to say how likely the new module option is at this point
 - How is this handled?
- Working with Ann and Barbara to set up cost accounts
 - Goal is late January
- GPP (New Start and Funding) Discussion



SNUMI Status

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- SNUMI Alternatives
 - Talked to Dave M. about NuMI alternatives, outcome of discussion:
 - He will write a document that compares and contrasts the technical merits and difficulties of the three different options for providing beam powers greater than 1 MW for a 120 GeV proton beam
 - Slip stacking 18 batches in the Recycler
 - Momentum stacking in the Accumulator
 - Proton Driver.
 - Ioanis will help
 - Will get input on the Proton Driver from Proton Driver management (most likely Bob Webber).
 - Goal to complete the document by the end of the year (2006).
- Campaign/MIE Project/Line Item Project? [All]
 - When need to get something to Mike for CD0 if we plan to do something SNUMI-like?



SNUMI Timeline as Project (Line Item)

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Line Item Project: Complete 12/12

